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ABSTRACT

Many indicators point to a crisis of confidence and credibility in the role of the teacher as a professional and moral leader. In response, many educational researchers are recommending that reflective teachers examine the moral and ethical issues embedded in their everyday thinking and behavior. A study was conducted, therefore, to identify and compare moral decision-making processes of education students, practicing teachers, and teacher educators by determining their corresponding stages of moral development and the factors which impact their decisions. Subjects (N=240) completed the Defining Issues Test (DIT) and educational dilemma vignettes and ranked reasons impacting their decisions. Findings provide empirical data to test the relationship between levels of ethical education, moral development, and practical dilemma decisions and to identify significant differences in the type of ethical decisions educators make and reasons that impact those decisions. Appendixes include: a list of references, the complete text of one vignette, and five tables which include DIT results for students, teachers, and teacher educators, and DIT score impact on ethical decisions. (Author/LL)

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REFLECTIVE TEACHERS' ETHICAL DECISION-MAKING PROCESSES

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REFLECTIVE TEACHERS'

ETHICAL DECISION-MAKING PROCESSES

Abstract

Many indicators point to a crisis of confidence and credibility in the role of the teacher as a professional and moral leader. In response, many educational researchers are recommending that reflective teachers examine the moral and ethical issues embedded in their everyday thinking and behavior. Subjects completed a research instrument of DIT and educational dilemma vignettes and ranked reasons impacting their decisions. Results are used to identify the moral decision-making processes of education students, practicing teachers, and teacher educators and their corresponding stages of moral development. This descriptive analysis, exploratory in nature, is a necessary initial phase in restructuring reflective, moral teacher education.

REFLECTIVE TEACHERS'
ETHICAL DECISION-MAKING PROCESSES

The high regard for teachers as professionals has come under increased criticism following the publication of several national reports led by the Nation at Risk report in 1983. Not only are American students' academic abilities being questioned, but the moral fiber of our country's youth is apparently weakening. In the past two decades, numerous campuses have consistently reported unethical behaviors, specifically cheating (Pratt & McLaughlin, 1989). Two thirds of the high school students included in a national poll said they regularly cheat on exams and intend to lie in order to achieve their objectives (Kidder, 1991). Many feel that this type of behavior reflects the general moral decay within the cultural and social institutions, including education. Increasingly, teachers are being held responsible for rectifying the publicly perceived inadequacies, both academic and moral, of their students.

In response to this crisis of confidence and credibility in the role of the teacher, current reform efforts focus on increasing academic rigor to address society's ills (Rogers & Webb, 1991). However, the restructuring of teacher education also needs to be concerned with developing educators who are able to make morally sound decisions. Teachers should be provided opportunities to examine the moral, ethical, political, and instrumental issues that are embedded in their everyday thinking and practice (Zeichner, 1983). Becoming aware of the social, political, moral, and philosophical implications of teaching

enhances the dignity and credibility of our status as a trained professional (Beyer, 1984). Teaching is more than simply a set of skills to be learned or the transmission of knowledge.

> As an increasingly technological society, we are apt to really believe that science will provide all the answers, that all we have to do to improve schools is just develop the technical skills of those we label teachers. We are apt to reject the importance of a moral ecology and the delicate balance of moral relationships between society, schooling, teaching, and preparing to teach.
>
> (Sirotnik, 1990, p. 321)

If teacher education ignores the development of educational and ethical decision-making, it misses the heart of the work that teachers do (Rogers & Webb, 1991). Thus, educators need to reflect on factors that impact their moral decision-making processes.

A number of educational researchers recommend that ethical concerns be central in considering approaches to teaching and schooling (Goodlad, Soder, & Sirotnik, 1990; Noddings, 1984; Tom, 1984). According to Strike (1990), teacher education programs should include instruction in basic ethical concepts, rather than focusing on abstract moral philosophy. Emphasis should be on teaching substantive ethical concepts and developing ethical judgment, not on developing philosophers or improving character. Howe (1986) maintained that teacher educators need to be concerned with important questions of ethics instruction, its content, and its teaching methodology. Theorists such as Dewey (1960), Piaget (1965), and Kohlberg (1971), considered the process of moral deliberation as one legitimate aim of schooling and by implication, of teacher education. In emphasizing the teacher's role as a moral agent, Goodlad (1988) claimed that the

emerging professional teacher should be a "witting moral agent, with moral obligations derived from moral imperatives." (p. 9). In an effort to restore respect to the public's perception of teachers as professionals, teacher educators need to carefully consider the desired outcome of ethical instruction and training, the type of ethics instruction included in teacher education curricula, and the impact it will have on professional teaching careers.

Students enter programs of teacher education with different backgrounds of moral development compared to students at the turn of the century or even thirty years ago.

> In the days of the McGuffey Reader and the schoolmarm's switch, the typical community had an ethics delivery system that rested on the three legs of home, church, and school. Modern society has kicked away the first two legs. Churches are often out of touch with the majority of the young. The family, once a source of moral instruction and cheerleader to the efforts of the teacher, is abandoning those roles...Why teach ethics, after all, if half the time your instruction finds no reinforcement after the last bell--and the rest of the time you get blasted by parents and religionists who accuse you of teaching the wrong ethics?
>
> (R. Kidder, 1990, p. 30)

The neglect of teaching ethics in the schools has been influenced by the state of our contemporary American society. According to Ashton (1991), the meagre literature available on the moral responsibilities of teaching offers clear evidence of several decades of neglect.

During college education courses, student teaching, and following graduation, the process by which teachers assimilate the "culture" in which they work is referred to as socialization. Traditionally, this process has primarily used field-based

experiences to socialize prospective teachers into established patterns of school practice (Zeichner, 1983). There appears to be a general tendency for prolonged field experiences to perpetuate strategies that are congruent with the existing institutional and professional expectations or the educational status quo. This process of blindly accepting what others regard as appropriate or commendable can lead to devaluing critical analysis and interpretation, which is, in essence, antithetical to the purposes of education itself (Beyer, 1984). In modern day terminology, this process might be called "cloning" as teachers replicate their mentor or model.

Many educational researchers now recommend reflective teaching as an alternative model to the conventional approach which follows an apprenticeship model by providing student teachers with pedagogical skills and techniques derived from a pre-existing body of knowledge (Zeichner & Liston, 1987). Instead of "going through the motions" with technocratic behavior, reflective teachers are expected to ask "why" in the spirit of inquiry as they consider the moral and ethical implications of their actions. Dewey (1933), in commenting on the quality of reflection, argued that it emancipates us from merely impulsive and routine activity and that it enables us to know what we are about when we act. This type of reflective thought has implications for the type of decision-making processes we use as teachers. When making decisions, moral and ethical considerations are taken into account as alternatives are evaluated. The renaissance of attention to reflective thought

has stirred teacher educators to rediscover the moral nature of teaching.

Several different approaches to reflective teacher education emphasize the moral foundations of teaching. Valli (1990) described three different approaches: 1)deliberative, 2)relational, and 3)critical. The deliberative approach is epitomized by Tom's (1984) teaching as a moral craft which encourages prospective teachers to be concerned with the rightness of conduct, general questions of valuation, and the pursuit of desirable ends. Ethic-of-caring programs based on Nodding's philosophical writings (1984) are prime examples of the relational approach to reflective practice. Relationships are seen as more important than rationality, and empathetic understanding as more important than abstract principles. Teacher education programs based on the critical approach argue that teachers have a moral obligation to reflect on and change their own practices and school structures when social injustice is perpetuated. Other approaches to moral deliberation include the theories of teleological and deontological ethic (Sockett in Goodlad et al., 1990), and the consequentialist and nonconsequentialist ethical theories recommended by Strike & Soltis (1985). Each of the aforementioned approaches can provide teachers guidance concerning what constitutes ethical conduct as they deliberate and analyze their moral decision-making processes.

Although research has been limited, a resurgence of interest is evident for identifying teachers' thought processes and level of moral reasoning/development. As professionals, teachers make judgments and carry out decisions in a complex environment. Much

happens in the classroom every day, and teachers have to deal with the complexities of teaching in a social setting (Good & Brophy, 1987). Attempts to analyze teachers' behavior without also considering their thinking processes will necessarily be incomplete (Fenstermacher, 1978; Shavelson & Stern, 1981).

A few studies have been conducted to determine if teachers' levels of moral development are related to their teaching behaviors. Johnston (1985, 1986) found a positive relationship between inservice teachers' understandings of such teaching topics as individualized instruction and "on-task" behavior and levels of moral development measured by the Defining Issues Test (Rest, 1979). Witherell (1978) found positive correlations between differences in teachers' "constructs" and teaching practices, and their levels of ego development as measured by the Sentence Completion Test (Loevinger, 1976). Findings demonstrate that teachers with higher ego levels have more complex understandings of the learning process and place greater value on children's feelings, emotional needs, and social interactions.

Johnston and Lubomudrov (1987) studied the relationship of teachers' levels of moral development as they relate to the understanding of rules and teacher/student roles in their classrooms. Teachers with high moral development, as measured on the Defining Issues Test, had a more democratic view of teacher and student roles in the classroom. Furthermore, the researchers argued that from a cognitive developmental perspective, the understandings of teachers with higher DIT scores were more "professionally adequate" than those teachers with lower DIT

scores because they had the capacity to think more complexly about educational issues. Lower levels of cognitive development appeared to put a ceiling on a teacher's ability to think about his/her role and behave in complex and reflective ways. Recommendations included the establishment of teacher education programs that encourage higher levels of moral cognitive development.

There is an increasing need to instruct teachers in those substantive ethical concepts (such as equity, tolerance, due process, and intellectual freedom) that are central to the activities of teaching. According to Strike (1990), this omission in the training of most teachers is one that desperately needs rectification. Educational interventions have indeed been limited, and there appears to be a strong desire for increasing the amount of curricular emphasis. If the relative amount of ethical training content in teacher education curricula is to be increased, it appears logical to first consider and extend research to include examination of the moral decision-making processes of educators. Thus, the purpose of this descriptive study is to identify and compare the moral decision-making processes of education students, practicing teachers, and teacher educators by determining their corresponding stages of moral development (Kohlberg, 1984) and the factors which impact their decisions.

Method

Subjects

A total of 240 usable responses to the DIT and vignette sections of the research instrument provide empirical data to

test the relationship between levels of ethical education, moral development, and practical dilemma decisions. At no time throughout the research study were individual or individual responses analyzed or reported upon. Three intact groups of educators are recognized in different analyses of the data: 101 junior and senior education students, 102 practicing elementary school teachers, and 37 teacher educators.

The Research Instrument

The methodology for this research study required that subjects complete the researcher-developed "Survey of Educator Ethics Opinions" instrument which consists of three sections. Section I contains a questionnaire of twelve statements which allows subjects to express their opinions on a Likert scale regarding various ethical issues such as experiencing moral or ethical problems as a student or a practicing teacher and familiarity with the "Code of Ethics and Standard Practices for Texas Educators." Section I also includes brief demographic questions such as level of education, experience, ethics courses taken, age range, and gender. These questions varied slightly for each group. For example, students were asked to indicate their college major and level while practicing teachers and teacher educators indicated their years of experience teaching.

In Section II four educationally related vignettes are presented to investigate ethical decision-making by providing a variety of specific educational dilemmas. These vignettes were designed by the researchers based on personal experiences and discussions with practitioners. The situations vary with respect

to commonality and direct applicability to educational practice. The four dilemmas are summarized as follows:

#1 A teacher must decide whether or not to "blow the whistle" on a fellow teacher who is exhibiting questionable behavior.

#2 A teacher must decide whether or not to use PTA funds for school or for personal expenses.

#3 A teacher must decide whether or not to confront an influential parent regarding the parent's behavior (doing her child's homework).

#4 A student teacher must decide whether or not to comply with her cooperating teacher's instructions to "teach the test."

The complete text of vignette #4 is presented in Exhibit 1 as an example.

Section III includes three vignettes taken from the Defining Issues Test (DIT) to determine stages of moral development. The three dilemmas presented are "Heinz and the Drug," "Escaped Prisoner," and "Newspaper" (dealing with a school newspaper and an educational issue).

Procedure

Students completed the instrument as an exercise during education classes. At each administration the researcher(s) provided a brief introduction, instructions, and remained with the subjects to observe completion. In two out of the six elementary schools, the same procedures as the student administration were followed for the practicing teachers. In the other two schools, brief introductory letters and instructions were given to the building principals who then administered the instruments.

Four of the elementary schools were in the same public school district while one was a small private school. Other than the private school's religious orientation, there were no major demographic, social, or religious differences, nor were there significant differences in socio-economic characteristics of the teachers' schools that would distinguish one group of teachers from the other. The teacher educators in one college of education at a major university were asked to voluntarily complete the instrument with cover letter and written instructions given.

The response rate for the students was virtually 100% with four responses being eliminated as unusable. The practicing teachers' response rate was 74% with 28 respondents being eliminated, and the teacher educators' response rate was 51% with four being unusable responses. Internal validity checks for DIT scores (as outlined by Rest, 1986) also reduced the numbers of valid moral measures as indicated in Table 1.

Stage-Sequence Theory

The research method used to identify levels of moral development is based on Dewey's (1891) three levels of intellectual and moral development, Piaget's stages of cognitive development and Kohlberg's (1958, 1984) six stages of moral development. A summary of Kohlberg's stage theory follows:

I. Preconventional Level (focus on self)

Stage 1 - The physical consequences of actions determine their goodness or badness.

Stage 2 - Right action satisfies one's own needs and occasionally the needs of others, if reciprocity is involved.

II. Conventional Level (focus on group)

Stage 3 - Good behavior is what pleases others and is approved by them.

Stage 4 - Right behavior consists of doing one's duty, respecting authority, and maintaining the social order, for its own sake.

III. Post-Conventional Level (focus on inner self)

Stage 5 - Right actions are defined in terms of general individual rights as well as standards agreed upon by society.

Stage 6 - Right is defined by the decision of conscience in accord with self-chosen ethical principles.

In addition to postulating the stage-sequence theory, Kohlberg and his colleagues at Harvard University developed the Moral Judgement Interview (MJI) as a means of identifying levels of moral development according to the six stages. James Rest (1974, 1979, 1986) developed another psychometric instrument referred to as the Defining Issues Test (DIT) which will be used in this study. This instrument is consistent with the stage-sequence theory and provides a less complex but still reliable assessment of moral development in terms of Kohlberg's stages.

Stage-Sequence Measurements

The "P" score from the DIT is the most commonly referred to measure of "the selective importance a subject gives to principled moral considerations in making a decision about moral dilemmas" (Rest, 1979a, p. 5.2). It is a summation of stages 5 and 6 which represents an individual's post-conventional thought about what is right or wrong when faced with an ethical decision. In total, the DIT provides quantitative measures for:

a) each individual stage (2,3,4,5, and 6);
b) principled reasoning ("P" - a combination of stages 5 and 6);
c) overall moral development ("D" - based on standardized scaling); and
d) two different types of internal validity checks.

Hundreds of studies have been conducted involving many thousands of subjects which provide objective comparisons with individual or other group DIT measures (Rest, 1979 and 1986). For example, the DIT manual (1986, p.iii) lists the following group P score averages:

65.2	Moral philosophy and political science doctoral students
59.8	Seminarians in a liberal Protestant seminary
52.2	Advanced law students
49.5	Practicing medical physicians
42.3	Average college students
40.0	Average of adults in general
31.8	Average senior high school students
21.9	Average junior high school students
18.9	Institutionalized delinquent boys, 16 years old

Dilemma Decision Responses

As previously discussed, this study collects DIT scores from groups of education students, practicing teachers, and teacher educators. In addition to the DIT scores, data is collected on decisions to four ethical dilemma situations which could be encountered by educators. Specific responses from each of the subjects to the four vignette situations include:

1) what is the ethically right decision (yes or no), and
2) a ranking of eight potential reasons for the decision.

Analyses of the decision responses, reasons for the decisions, and DIT scores provide an indication of the impact of moral development on education students', practicing teachers', and teacher educators' ethical decision-making.

The Use of Vignettes

Vignettes are short, concrete stories to which subjects respond by indicating which factors are considered important in making their final decision. As a vehicle for investigating an individual's ethical principles and behavior, vignettes provide significant advantages over other instruments (Cavanaugh and Fritzsche, 1985).

One significant advantage is that vignettes allow the researcher to control the stimuli presented in a dilemma and receive common responses to the same stimuli. For this study, specific aspects of different educational dilemmas are controlled, and specific categories of reasoning are ranked as to the impact on the final decision. Anonymous responses to vignette situations give subjects the opportunity to candidly respond to issues that are not linked with specific actions.

Four different vignettes were developed for the research instrument, "Survey of Educator Ethics Opinions," to obtain subjects' responses to a variety of situations. In order to measure differences of opinion between subjects with similar training and background, specificity is necessary (Ferrell & Greshen, 1985). However, when vignettes are oriented to very specific situations, responses to multiple scenarios are necessary. Ethical theorists have concluded that an individual's ethical orientation needs to be measured over a variety of situations and decisions (Murphy & Laczniak, 1981). The four vignettes designed for this study as previously described, provide a variety of specific educational dilemmas.

Reasons for Vignette Decisions

Eight potential reasons which may have been important to the decision-making process are included within each vignette for subject consideration and ranking. Exhibit 1 illustrates the reasons provided for Vignette Four. The coded classifications, in the left margin of Exhibit 1 have been added for this discussion and were not on the research instruments completed by the subjects. The design of the eight reasons results in two reasons supporting each of four potential influences on the final ethical decision:

Two rule-based reasons (RULE)
Two social relationship reasons (SOC)
Two student consideration reasons (STU)
Two personal interest reasons (PERS)

There are an equal number of positive and negative reasons provided within each coding category, with four supporting a positive response and the other four supporting a negative response. A "yes" decision implies a code or rule-based decision for vignettes #1 and #3 while a "no" decision indicates a conservative decision response for vignettes #2 and #4. (Further clarification will follow in the section for discussion of vignette responses.)

Subjects are provided the opportunity to indicate reasons that they do not consider important and then are asked to rank the remaining reasons they consider relevant to their decision. A 16 point symmetrical weighting scheme (7,5,3,1) was applied to quantify the importance of the top four ranked reasons since a majority of respondents ranked four or more reasons on all vignettes. When analyzing any set of four reasons, a subject's

score could vary from zero (if none of the four reasons were ranked) to sixteen (7+5+3+1) if all four were ranked highly by the subject. For each set of two reasons in the RULE, SOC, STU, and PERS categories, the cumulative scoring total could vary from zero (if neither of the two reasons being measured were ranked) to twelve (7+5) if both reasons were ranked first and second by the subject. If the four reasons categories were ranked equally across all the subjects, an average score of approximately 3.6 would be expected because twenty-five percent of the subjects ranked fewer than four reasons as important to their decision. Reason categories with a score greater than 3.6 represent above average influence on the final decision while categories with less than a 3.6 average score represent a lower than average influence. In addition to indicating comparisons of above and below average influence, the quantification of reason importance allows comparison of subgroup measures.

Results and Discussion

Education Related DIT Results

The scores computed from the subjects' responses to the three story version of the DIT are presented in this section and compared with results obtained from liberal arts students, business students, and the general adult public.

Insert Table 1 here

In general, the data from this study indicate that professional educators have P scores (percentage of post-

conventional moral reasoning) lower than average college graduates who in turn are lower than other professional groups such as physicians or attorneys. As previously stated, the P score is a measure of principled reasoning which indicates the percentage of post-conventional thinking in arriving at a decision to an ethical dilemma. P scores obtained in recent studies of educators, liberal arts students, business students, and the average P scores of college freshmen, seniors, graduates, and adults in general are listed as follows:

Study and Date	Sample Size/Subjects	Ave. P Score
Oja & Sprinthall, 1977	n=48, elementary & secondary school teachers	E: 56.3 C: 46.3
Stevenson, 1981	n=29, college students in social science, humanities & English	50.1
Zeidner, 1988	n=360, student candidates for college admission	36.48
Ponemon & Glazer, 1990	n=43, liberal arts and and business graduates	43.6
Holt & Jeffrey, 1991	n=40, liberal arts seniors	38.27
Finn & Lampe, 1991	n=112, senior business students	34.49
Current study, 1991	n=90, junior & senior education students	34.7
	n=94, practicing teachers	35.5
	n=32, teacher educators	51.3
Average college freshmen (Rest, 1986)		31.8
Average college seniors (Rest, 1986)		42.3
Average college graduates (Rest, 1986)		44.8

These results lead to a consistent conclusion that average practicing teacher P scores are less than average college

graduate scores and far less than the previously referenced averages of physicians (49.5) and lawyers (52.2).

The data from the current study indicate a slight increase from education students to practicing educators. If the comparison of practicing teachers and students is not measurably different, it may indicate that the socialization process occurs more at the collegiate level than on the job following graduation. These increases would be consistent with Rest's (1986) contention that, on average, college educated adults will experience slight increases in moral judgment scores following formal education:

> . . . development in moral judgment seems to advance as long as a person is in school, and at whatever point the person stops his education, his moral judgment score tends to stabilize. Adult subjects who ended their formal education many years ago tend to have about the same scores . . . (Rest, 1986, p.7.3)

For subjects with advanced formal education levels, the scores increase slightly but high school graduates not attending further formal schooling tend to increase slowly for about two years and then fall off (Rest, 1986). The P score results indicate that teacher educators are significantly higher than both practicing teacher or student teacher scores. This may indicate that those in a professorial role continue their education through involvement in research and continued study.

It can be observed that all students realize large gains in post conventional thinking during the college years. Whether this is due to formal training, informal extracurricular activities, individual self-selection factors, or some combination of these and other factors, it is obvious that

significant changes in moral development occur during the college years (Rest & Thoma, 1985).

The current study attempts to look more in depth at development in conventional (stage 3 and 4) thinking as well as the post-conventional (stages 5 and 6). The reader is encouraged to review the previously presented summary of Kohlberg's stage formulations. Table 1 provides a comparison of the stage scores from students, practicing teachers, and teacher educators with those of a large standardized sample.

Table 1 shows the average group percentage reasoning attributed to each of Kohlberg's stages. For example, participating college education students yielded DIT results indicating that only 6.6% of the thinking in making a decision for an ethical dilemma is based on stage 2 reasoning, 16.0% is based on stage 3, and 34.7% of the thinking is based on stage 4 rule and order oriented logic. Combined conventional level thinking (stages 3 and 4) accounts for over 50% of the thinking in making a decision. On the average, the students and practicing teachers display a predominantly conventional level of thinking significantly greater than the postconventional measures. Average college students and college graduates, to the contrary, display primarily postconventional reasoning.

From Table 1, it may also be observed that practicing teachers have stage 3 and 6 scores similar to those of the standardized sample of college graduates. However, stage 4 scores are significantly higher than that of college graduates while stage 5 is significantly lower than non-teacher counterparts of the standardized sample.

Education students have stage 2, 3, and 6 scores similar to average college students, significantly higher stage 4 scores, and significantly lower stage 5 scores. There is a clear progression away from stage 2 and stage 3 thinking in the socialization process going from students to practicing teachers to post-graduates, or teacher educators.

Table 1 shows teacher educators to have predominantly post conventional thinking with over 50% in stages 5 and 6. Slightly over 14% of thinking is attributed to stages 2 and 3, significantly lower than both students (22.6%) and practicing teachers (19.1%).

Insert Table 2 here

Table 2 displays a more detailed frequency distribution of the stage impact on subjects' moral reasoning. It shows the percentage of participants that yielded the associated level of DIT stage score. It is immediately obvious that neither individuals or groups are 100% oriented to a single stage or level but include reasoning from multiple stages when making ethical decisions. For example, approximately 3.1% of the teacher educators generated a stage 2 score between 20 and 29, while 25% of the teacher educators were measured to have a stage 4 score in the same range. Even more importantly, approximately 3.1% of the teacher educators had 20% or more of their reasoning based on stage 2 and none had more than 30% stage 2 orientation. In contrast, about 93.8% of the teacher educators had 20% or more of their thinking based on stage 5, about 84% had 30% or more,

and over half (53.2%) of the teacher educators had a strong 40% or more of their reasoning based on stage 5.

In Table 2, it can be seen that very few educators (students, practicing teachers, or teacher educators) have more than a 20% orientation to stage 2 thinking. Most educators have little or no such orientation as measured by the DIT. Of those educators that display some stage 2 reasoning, it is evident that a larger proportion of students are affected by stage 2 than are the practicing teachers or teacher educators. Although the P scores (sum of stages 5 and 6) of the students and practicing teachers are very similar, it should be noted that the practicing teachers have lower stage 3 and higher stage 4 scores than the students. This indicates a progression in thinking patterns toward the post conventional level.

If a cutoff of 50% is used as an indicator of primarily post conventional ethical reasoning, 23.4% of the practicing teachers and 62.5% of the teacher educators have P scores of 50% or higher. By comparison only 17.8% of the students have P scores over 50%. Therefore, it is apparent that the overall average difference in P scores between subgroups is magnified by stage score differences behind the P score. Similarly, individual students who would be classified as having virtually the same P scores might exhibit very different ethical orientations when confronted with a professional moral dilemma. For example, one student might be a predominantly stage 4 thinker while another student might be mired in almost total stage 2 and 3 reasoning.

Areas of concern yet to be discussed or analyzed are how the different levels of development, as measured by the DIT, affect decision making in ethical dilemmas, whether or not the three subgroups' decision making varied in a manner similar to the differences in P scores, and how different reasons impact ethical decision making. The next section of this paper presents data in partial response to these questions through analysis of educators' decisions to the professional education dilemma vignettes and is followed by an analysis of moral development impact on these decisions.

Vignette Decision Responses

The participating educators have provided decision responses and a ranking of reasons associated with their decisions for each of the four vignettes. Results of the educators' responses to these vignettes are presented in Table 3.

Insert Table 3 here

Educator Subgroup Decision Ratios

The range of student subjects' yes decisions varied from 21% to 94%. For practicing teachers the decision ratio was 36% to 93%, and for teacher educators it was 32% to 94%. A summary of the decision ratios follows:

	#1	#2	#3	#4
Students	83%	21%	94%	40%
Practicing Teachers	58%	36%	93%	37%
Teacher Educators	70%	32%	94%	51%

It can be noted that there is far less variation between groups of educators for vignette #3 decisions relative to the decision ratio when compared with the differences for vignettes 1, 2, and 4. Vignette #3 (a mother doing her child's homework) has very little difference (.94-.93 = .01) between any of the three groups. A possible explanation for the little variation is that all three groups have had personal direct experience as a student and nearly equally comprehend the impact on the decision maker. All groups of educators responded in virtually the same overwhelming ratio to confront the mother and risk a negative job impact in order to resolve the issue. The obvious concern for the child's learning appears to be of significant importance to all three groups and overrides other potential differences.

Responses to vignettes 1, 2, and 4, however, contained greater amounts of variation in the decision ratios. In vignette #1, the most obvious variations are between practicing teachers (58%) and students (83%) while the greatest variation in vignette #2 exists between students (21%) and practicing teachers (36%). Vignette #4 has the most obvious variation between practicing teachers (37%) and teacher educators (51%).

The reader should note that in designing the vignettes and their possible decisions, "yes" decisions on vignettes #1 and #3 and "no" decisions on vignettes #2 and #4 would be considered by most educators to be the code or rule-implied conservative decisions. (Please refer to the "Code of Ethics of the Education Profession" adopted by the NEA in 1975 and in Texas the "Code of Ethics and Standard Practices for Texas Educators and Teachers' Professional Practices Commission of Texas."

In vignette #1 (blowing the whistle on a colleague) students are the most conservative while practicing teachers are most liberal. A possible explanation for this variation is that students have been clearly taught this is a violation and have no practical experience with which to temper or moderate the decision. Likewise, in vignette #2 (usage of PTA funds) the students are once again more conservative and the practicing teachers more liberal in their willingness to allow a teacher discretionary use of PTA funds while in vignette #4 (teaching the test) practicing teachers were more conservative than both the students and teacher educators.

The significant differences between the three subgroups of educators' decision ratios for vignettes #1 and #2 are important findings. These data provide further support that the socialization process for educators continues following graduation. Additional insights to the differences between students, practicing teachers, and teacher educators' decision making processes are evidenced by the decision reasoning process.

Reasons for Ethical Decisions

It may be recalled that the quantified scoring of two reasons associated with each of four categories of decision influence in this study could vary from zero to twelve with an average of 3.6 cutoff used to reflect greater vs. lesser than average influence on the final ethical decision. The quantification of reason importance in Table 3 permits numerous observations and insights into the factors affecting the three subgroups of educators' ethical decision-making processes.

Perhaps the most basic observation is that all of the decision categories are non-zero. This means that within all the subgroups of educators, subjects thought each of the reasons had an important influence on their decision-making in all four vignettes. In addition, all subgroups ranked the same reason as most influential in the decision-making process within each individual vignette situation. Another obvious observation is that the relative importance of reasons varies across the different vignettes. For example, all of the subgroups considered concerns for the student (STU) to be the most important in the situation involving blowing the whistle on a colleague (vignette #1) and also in the situation involving a child's homework (vignette #3) but least important in deciding whether to teach the test (vignette #4).

All subgroups consider rule-based reasons (RULE) to be most important in vignette #2 when faced with the decision of how PTA monies should be used. In only one situation were rule-based reasons considered least important. This occurred in vignette #1 among teacher educators.

Personal interest reasons (PERS) were cited to be the most important reason by all subgroups for decision making in vignette #4 in which a person decides whether or not to teach the test. In addition, the consensus was that personal reasons were least important in making the decision for vignette #3 but mixed in vignette #2. In this vignette both students and teacher educators rated personal reasons as least important; however,

practicing teachers cited personal reasons as being very important in making the decision regarding PTA monies.

Only social concern reasons were not ranked as most important by any subgroup in making decision. However, they were considered as the second most important reason 17% of the time and the third most important 58%.

Insert Table 4 here

Significance of Between Group Differences

The statistical significance of between group differences is summarized in Table 4. The first column in Table 4 is labeled P value and presents the results of the analysis of variance (ANOVA) between the three groups of educators. The P value is significant for the decision ratios in vignette #1 ($p = 0.0003$) and vignette #2 ($p = 0.0470$) and for the Social and Student reason categories in the same vignettes at the .01 level of significance. Personal reasons were significant at the .05 level of significance in vignette # 2. There were no significant differences for all reason categories and decision ratios in vignettes #3 and #4.

The DIT results show significance in the principled reasoning score (P score), stages 4, 5, and 6 ($p = 0.01$), stage 2 ($p = 0.05$), and stage three ($p = 0.10$). In those vignettes where the difference in reasoning is significant, the reason for significance most often is the difference between the teacher educators and both of the other two subgroups or between the students and the practicing teachers.

Moral Development Impact on Dilemma Decisions

The previous three sections have presented results obtained from participating educators' DIT and vignette responses. The data presented indicate that the educator subgroups of students, practicing teachers, and teacher educators have different levels of moral development (P scores) and that each subgroup makes different decisions for different reasons and/or with different degrees of importance accorded to each reason. In this section, the DIT and decision ratio data are combined to provide an indication of how higher stages of moral development impact the ethical decisions made by educators.

Table 5 summarizes a comparison of the yes/no vignette decisions made by the combined groups versus the group of subjects with the higher DIT scores. In each category a stage score cutoff is selected to illustrate the decision ratio of approximately the highest quartile of respondents. For example, when the participating students are sorted according to P score, 16 of 90 respondents have a P score equal to or greater than 50. When sorted by stage 4 scores, 28 students have a score equal to or greater than 45. In both cases, the cutoff identifies approximately the top quartile of the respective respondents with respect to stage development reasoning. This technique allows a comparison of decisions made by those subjects most influenced by post conventional reasoning (top quartile P scores) with the decisions of subjects with the strongest orientation to rule and order (top quartile stage 4 scores) or with the overall total group.

Insert Table 5 here

The results presented in Table 5 indicate that, in general, subjects with high stage 2 scores make more conservative ethical decisions than subjects with either a high P score, a high stage 3 score, or a high stage 4 score. In contrast, subjects with high P scores tend to be liberal in their decision making.

In vignettes #1 and #2 all students' decision ratios were significantly different from those of practicing teachers at the .05 level of significance. In both vignettes this represents a more conservative position by the student teachers. The possibility of student unfamiliarity with the actual work situation and a more idealistic attitude might be possible reasons for this conservative decision making.

In the combined groups, the high stage 4 respondents differed significantly in vignette #1 from other subgroups (high P score, high stage 3, and high stage 2) at the .05 level of significance. Likewise, all valid respondents in vignettes #1 and #2 showed significant differences at the .05 level from other subgroups. Also in vignette #2, the high stage 2 respondents differed significantly at the .10 level from other subgroups while in vignette #4 the high stage 3 respondents showed significant differences from other subgroups at the .10 level.

Comparisons of vignette #3 (mother doing homework) decisions are virtually the same for all three groups, and therefore, not considered relevant to moral development impact. The concern for

a student's learning appears to override all other considerations in this situation.

It should be noted that potential reasons given for specific components of data, such as that in the previous paragraph, are based on conjecture. The greater importance of combining DIT scores and decision ratios in Table 5 is recognition that the stage of moral development has a significant and measurable impact on educators' decisions to ethical dilemmas.

Conclusions and Implications

The primary purpose of this study is to collect empirical data which identifies and compares the moral decision making processes of education students, practicing teachers, and teacher educators as well as to identify their corresponding stages of moral development (Kohlberg, 1984). Based on the data collected from 240 educators in this study combined with the data from several other cognitive-developmentalist stage-based studies, it is concluded that there are significant differences in the type of ethical decisions educators make and the reasons that impact those decisions.

The empirical data collected clearly indicate that educators with more highly developed stage cognition (postconventional thinking) knowingly deviate from ethical decision rules more often than do students with high rule and order orientation. In other words, educators with higher measures of moral development make more liberal ethical decisions while those with lower measures of moral development make more conservative decisions.

It may seem to be implied from our results that postconventional levels of moral development are preferable to conventional levels. It is a matter of perspective and cannot be assumed that higher is always better. For example, we certainly desire our law enforcement officials to have a rule and order orientation or conventional level of moral development. A more conservative emphasis is desirable for many roles in our society among which may be the role of teacher. The extreme lower levels, however, represent an immature, self-centered orientation, thus not contributing positively to our society. Rest (1987) encourages individuals to experience growth in moral development and advance to a higher stage. Perhaps both orientations, conventional and postconventional, are desirable dependent on different roles and/or situations.

The similar DIT scores for education students and practicing teachers seem to indicate that a socialization process exists in the education profession which appears to result in a homogeneous level of moral development for students and practicing teachers. Although both subgroups operate at a conventional level of moral development, the vignette decisions and reasons impacting them show significant differences between the two subgroups on decisions and reasons for two vignettes. Personal reasons impacted practicing teachers' decisions more often while primarily student and social concerns influenced education students' decision-making processes. The practical reality of the everyday work environment for the practicing teachers is distinguished from the idealistic, inexperienced viewpoint of the education students.

The teacher educators differed significantly from both of the other subgroups with regard to the DIT results and for the vignette decisions and reasons for two vignettes. With a principled reasoning score (P Score) of 51.3, teacher educators operate at the postconventional level of moral development and make more liberal decisions than do the other two subgroups of educators. Social and student concerns had the most impact on their decisions with rule-based concerns being the least influential. An emphasis on the theoretical and societal implications seems to guide the teacher educators' decision-making.

The conclusions of this paper recognize the impact of moral development on the decision-making processes of educators but do not indicate what the best or preferred strategy is for either education students or for the profession. However, implications of this study include the consideration of educational strategies for the development of moral decision-making skills. Education students need to develop an awareness of the "big picture"--that teaching is much more than simply the transmission of knowledge but a complex, multi-dimensional role in which they will be confronted with a multitude of moral dilemmas.

While there may be numerous alternative programs for increasing the integration of ethics into education, we concur with Tarvydas (1987) concerning the importance of cultivating integrated approaches to ethical judgment. Two distinctly different strategies are used to classify the many possible educational interventions. The first strategy is referred to as

reinforcement of the status quo and is presented in contrast to the second strategy of integrating new educational interventions into education curricula. It may appear contradictory to classify approaches to increasing ethics education as reinforcement of the status quo. However, many of the current suggestions for reforming and restructuring education curricula are based on strengthening existing rules of conduct through additional emphasis on formal ethical codes such as the NEA "Code of Ethics of the Education Profession" which deals with institutional rather than pedagogical concerns. Although such professional codes are important to know and may prevent flagrant abuses, they are clearly not sufficient to promote a concern with the quality of the work teachers do nor with their decision-making processes. Codes tell teachers what to do but offer no guide for taking action (Rogers & Webb, 1991). When a situation has any ambiguity, codes are not sufficiently useful or functional.

An alternative educational strategy is to integrate reflective inquiry into programs of teacher education thus providing students an opportunity to reflect at length on their actions (Henderson, 1987; Richert, 1987; Tom, 1984).

> If we are to encourage the development of thoughtful decision makers, we must provide future teachers not only with a chance to make decisions during "real life teaching experiences," but--just as important--the opportunity to talk and reflect upon those decisions through genuine dialogue with peers and mentors.
>
> (Rogers & Webb, 1991, p. 179)

As a vehicle for discussing and reflecting upon the moral dilemmas of teaching, one effective method would be the use of cases/vignettes (Strike & Soltis, 1985). Howe (1986) endorses

a form of critical reflection which uses a case-study method to exemplify ethical dilemmas that arise in school contexts. Everyday, teachers must deal with multiple dilemmas that cause them to make critical decisions (In Lampert, 1985).

Many leading educators believe that a change to the latter strategy is necessary. In order for critically reflective teacher education to make an impact, it must help students understand current social and educational dynamics (Beyer, 1991). The incorporation of critical reflective analysis and the use of cases/vignettes are ways that teacher education can be modified to achieve moral development of teachers. We concur with recommendations that preservice teachers be provided opportunities to examine the moral and ethical issues that teachers confront in their daily thinking and practice (Zeichner, 1983; Nash, 1991; Tom, 1984). This current descriptive research serves as a necessary initial phase in restructuring teacher education to include opportunities for developing ethical decision-making processes. Further research is needed to determine the most effective educational interventions in experimental settings.

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EXHIBIT 1

#4 Lisa is a student teacher in Mrs. Benson's second grade classroom for the spring semester. Although much of what Lisa is learning is proving very helpful for her future career as teacher, she is having difficulty complying with one of her cooperating teacher's recent requests. Since Lisa knows that her most influential reference will come from Mrs. Benson, she wants to please her in order to assure a favorable job recommendation. The conflict involves the ITBS or Iowa Test of Basic Skills which is to be given in early March. There is tremendous pressure on teachers and schools regarding their students' performance on this test from both state and local sources. Therefore, almost all instruction is focused on preparing for the test during the few weeks prior to administering the ITBS. Mrs. Benson had somehow secured a copy of a previous year's ITBS test and expects Lisa to actually "teach the test" in order to assure that her class will perform well. Lisa is wondering if refusal to comply with Mrs. Benson's request will jeopardize her future job possibilities.

If you were in Lisa's place, would you "teach the test" as Mrs. Benson has directed you?

_____YES _____NO

The following items may have been important to you in making the above decision. You may have considered and offset both positive and negative aspects in the decision process. Please rank the items you consider most important by placing the number "1" next to the one you consider most important, the number "2" next to the item second most important, and continue this ranking for all the items you consider important. Place an "X" next to any item with which you disagree or do not feel relevant to the decision.

(RULE) _____ "Teaching the test" is, in essence, cheating and breaking the rules.

(RULE) _____ Lisa should obey those in authority over her.

(SOC) _____ This is not an unusual situation; many teachers "teach the test" to one degree or another.

(PERS) _____ Lisa's whole future may depend on Mrs. Benson's recommendation.

(STU) _____ Intense preparation which focuses on drill, practice and memorization immediately before the test, often causes students undue stress and creates a negative attitude.

(SOC) _____ Considering such behavior (teaching the test) as acceptable does not uphold the high ideals of the education profession.

(PERS) _____ Lisa must be true to herself and should not compromise her belief that "teaching the test" is inappropriate.

(STU) _____ The students are in a sense being manipulated and used, and "teaching the test" is not in their own best interest.

TABLE 1
DIT RESULTS FOR STUDENTS/TEACHERS/TEACHER EDUCATORS

SAMPLE GROUP	P-SCORE	CONVENTIONAL STAGE 2	CONVENTIONAL STAGE 3	CONVENTIONAL STAGE 4	POST CONVENTIONAL STAGE 5	POST CONVENTIONAL STAGE 6
STUDENTS (N=90)[1]	34.76[a]	6.73	15.97	34.68	28.76	5.97
PRACTICING TEACHERS (N=94)	35.51[a]	5.01	13.67	37.48	25.88	9.52
TEACHER EDUCATORS (N=32)	51.25[b]	3.38	11.38	28.00	42.75	8.50
DIT INDICES FOR COMPARISONS (Based on standardizing sample)[2]						
HIGH SCHOOL JUNIORS	20.00	10.50	25.00	33.73	17.65	2.35
HIGH SCHOOL SENIORS	31.03	8.58	19.73	31.95	28.33	4.03
COLLEGE STUDENTS	43.19	5.08	14.33	28.35	35.01	8.15
COLLEGE GRADUATES	44.85	3.73	13.26	29.95	33.92	10.93
ALL RESPONDENTS	34.77	6.98	18.08	31.00	28.40	6.36

[1]The sample sizes reported in this table are less than those in other tables as a result of eliminations following two checks on the reliability of subjects' responses. First, an "M" score is computed to determine if a subject has checked items according to perceived complexity or pretentiousness Second, a consistency check compares subjects' ratings of 12 reasons for each story with the ranking of the four most important items provided at the bottom of the instrument. Inconsistencies on more than 2 stories or more than 8 total ratings and "M" scores greater than 14% caused the sample sizes in Table 1 to be reduced.

[2]A large sample of 1080 subjects (270 in each of the four listed groups) has been used for standardizing computations [Rest, 1979]. The raw scores have been converted to percentages for comparison with current study DIT results.

[a]Significantly less than college students (graduates) at $p < .01$

[b]Significantly greater than college graduates at $p < .05$

Table 2
FREQUENCY OF STAGE SCORE OCCURRENCES

Students

% of Thinking	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	P-Score
> 89	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
80 - 89	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
70 - 79	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%
60 - 69	0.0%	0.0%	7.8%	6.7%	0.0%	6.7%
50 - 59	0.0%	1.1%	11.1%	5.6%	0.0%	7.8%
40 - 49	0.0%	3.3%	24.5%	13.3%	0.0%	20.0%
30 - 39	0.0%	7.8%	18.9%	20.0%	0.0%	23.3%
20 - 29	4.4%	25.6%	22.2%	31.1%	1.1%	24.5%
10 - 19	35.6%	34.4%	14.4%	14.4%	35.6%	11.1%
< 10	60.0%	27.8%	1.1%	8.9%	63.3%	3.3%

Teachers

% of Thinking	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	P-Score
> 89	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
80 - 89	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
70 - 79	0.0%	0.0%	1.1%	0.0%	0.0%	2.1%
60 - 69	0.0%	0.0%	9.6%	6.7%	0.0%	2.1%
50 - 59	0.0%	1.1%	10.6%	4.2%	0.0%	19.2%
40 - 49	0.0%	3.2%	25.5%	19.2%	0.0%	20.2%
30 - 39	0.0%	5.3%	28.7%	26.6%	0.0%	24.5%
20 - 29	5.3%	14.9%	14.9%	13.8%	12.8%	16.0%
10 - 19	22.3%	45.7%	6.4%	19.2%	45.7%	13.8%
< 10	72.4%	29.8%	3.2%	17.0%	41.5%	2.1%

Teacher Educators

% of Thinking	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	P-Score
> 89	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
80 - 89	0.0%	0.0%	0.0%	0.0%	0.0%	6.2%
70 - 79	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%
60 - 69	0.0%	0.0%	3.1%	12.5%	0.0%	12.5%
50 - 59	0.0%	0.0%	6.2%	15.6%	0.0%	31.3%
40 - 49	0.0%	3.1%	6.2%	18.8%	0.0%	9.4%
30 - 39	0.0%	6.2%	34.5%	31.2%	0.0%	18.8%
20 - 29	3.1%	6.2%	25.0%	9.4%	12.5%	3.1%
10 - 19	15.6%	34.4%	15.6%	3.1%	37.5%	6.2%
< 10	81.3%	50.0%	9.4%	3.1%	50.0%	0.0%

Table 3
SUMMARY OF SUBGROUP DECISIONS AND REASONS

Group -- Decision Ratio / Reason	Vignettes One	Two	Three	Four
Students (n=101)				
Decision Ratio	0.83	0.21	0.94	0.40
Rule	3.02	5.26	3.84	4.42
Social	1.23	4.33	1.35	3.62
Student	8.84	4.34	10.29	2.82
Personal	2.71	1.73	0.36	4.91
Practicing Teachers (n=102)				
Decision Ratio	0.58	0.36	0.93	0.37
Rule	3.54	5.50	4.07	3.81
Social	2.17	2.82	1.35	3.45
Student	6.31	2.99	9.52	2.92
Personal	3.36	3.07	0.40	4.55
Teacher Educators (n=37)				
Decision Ratio	0.70	0.32	0.94	0.51
Rule	2.49	4.95	4.19	3.46
Social	2.86	4.00	0.92	4.13
Student	7.32	3.32	9.92	2.41
Personal	3.00	2.68	0.46	4.49
Combined Groups (n=240)				
Decision Ratio	0.70	0.29	0.94	0.40
Rule	3.16	5.31	3.99	4.01
Social	1.88	3.66	1.28	3.63
Student	7.53	3.61	9.90	2.80
Personal	3.03	2.44	0.39	4.69

Table 4
SIGNIFICANCE OF BETWEEN GROUP DIFFERENCES

	P Value	Students	Practicing Teachers	Teacher Educator
DIT Results				
P Score	0.0001	34.76	35.51	51.25
Stage 2 Score	0.0191	6.73	5.01	3.38
Stage 3 Score	0.0764	15.97	13.67	11.38
Stage 4 Score	0.0087	34.68	37.48	28.00
Stage 5 Score	0.0001	28.76	25.88	42.75
Stage 6 Score	0.0004	5.97	9.52	8.50
Vignette # 1				
Rule	0.1572	3.02	3.54	2.48
Social	0.0070	1.23	2.17	2.86
Student	0.0001	8.84	6.31	7.32
Personal	0.2698	2.71	3.36	3.00
Decision Ratio	0.0003	0.83	0.58	0.70
Vignette # 2				
Rule	0.5107	5.26	5.50	4.94
Social	0.0006	4.38	2.82	4.00
Student	0.0004	4.34	2.99	3.32
Personal	0.0380	1.73	3.07	2.68
Decision Ratio	0.0470	0.21	0.36	0.32
Vignette # 3				
Rule	0.6464	3.84	4.07	4.19
Social	0.5873	1.35	1.35	0.92
Student	0.1712	10.29	9.52	9.92
Personal	0.9276	0.36	0.40	0.46
Decision Ratio	0.9392	0.94	0.93	0.95
Vignette # 4				
Rule	0.1657	4.42	3.81	3.46
Social	0.3811	3.62	3.45	4.14
Student	0.6710	2.82	2.92	2.41
Personal	0.6112	4.91	4.55	4.49
Decision Ratio	0.3214	0.40	0.37	0.51

Table 5
DIT SCORE IMPACT ON ETHICAL DECISIONS

Group Stage - Cutoff	Sample Size	VIGNETTES One	Two	Three	Four
Students:					
P Score > 50	16	0.750	0.125	0.750	0.375
Stage 4 > 45	28	0.893	0.179	0.964	0.500
Stage 3 > 20	34	0.765	0.462	0.971	0.353
Stage 2 > 10	36	0.833	0.250	0.972	0.500
All students	90	0.833 -a	0.211 -a	0.933	0.411
Practicing teachers:					
P Score > 50	22	0.455	0.409	0.955	0.227
Stage 4 > 45	28	0.536	0.357	0.929	0.357
Stage 3 > 20	23	0.565	0.217	0.869	0.565
Stage 2 > 10	26	0.654	0.192	0.962	0.423
All prac. tchrs	94	0.574	0.351	0.926	0.351
Teacher educators:					
P Score > 50	20	0.700	0.300	0.900	0.550
Stage 4 > 45	4	0.750	0.000	1.000	0.250
Stage 3 > 20	5	0.600	0.600	1.000	0.800
Stage 2 > 10	6	0.833	0.667	1.000	0.500
All tchr edctrs	32	0.719	0.281	0.938	0.531
Combined groups:					
P Score > 50	58	0.621	0.293	0.879	0.379
Stage 4 > 45	60	0.717 -b	0.250	0.950	0.417
Stage 3 > 20	62	0.677	0.290	0.935	0.468 -c
Stage 2 > 10	68	0.765	0.265 -c	0.971	0.471
Valid respondents	216	0.704 -b	0.282 -b	0.931	0.403

a - significantly different from practicing teachers $p<.05$
b - significantly different from subgroups $p<.05$
c - significantly different from subgroups $p<.10$